オブジェクト指向プログラミング No.5

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ソースコード

Seiseki.java

public class Seiseki{

private String course = "特別研究一";

private String category = "専門科目";

private int credit = 6;

private int grade = 5;

private static String[] title1 = new String[5];

private static String[] title2 = new String[5];

private static String[] title3 = new String[5];

private static int i1 = 0;

private static int i2 = 0;

private static int i3 = 0;

public Seiseki(){}

public Seiseki(String course){

this.course = course;

}

public Seiseki(String course, String category){

this(course);

this.category = category;

}

public Seiseki(String course, String category, int credit){

this(course, category);

if (credit != 1 && credit != 2 && credit != 4){

credit = 2;

}

this.credit = credit;

}

public Seiseki(String course, String category, int credit, int grade){

this(course, category, credit);

if ( grade > 5 || grade < 0){

grade = 0;

}

this.grade = grade;

}

public String GetCourse(){

return course;

}

public String GetCategory(){

return category;

}

public int GetCredit(){

return credit;

}

public int GetGrade(){

return grade;

}

public String GetGradeName(){

String str = "";

switch(grade){

case 5:

str = "秀";

break;

case 4:

str = "優";

break;

case 3:

str = "良";

break;

case 2:

str = "可";

break;

case 1:

case 0:

str = "不可";

break;

}

return str;

}

public void putTitle(){

switch(category){

case "専門科目":

title1[i1] = course;

i1++;

break;

case "基礎数学科目":

title2[i2] = course;

i2++;

break;

case "教養科目":

title3[i3] = course;

i3++;

break;

}

}

public static void printTitle(){

System.out.println("------専門科目-----");

for(int i = 0; i < i1; i++)

System.out.println(title1[i]);

System.out.println("------基礎数学-----");

for(int i = 0; i < i2; i++)

System.out.println(title2[i]);

System.out.println("------教養科目-----");

for(int i = 0; i < i3; i++)

System.out.println(title3[i]);

}

public void printSeiseki(){

System.out.println("単位取得: " + GetGradeName());

}

public String toString(){

return String.format("科目名:%s, 種類:%s, 単位:%d, 成績:%d", course, category, credit, grade);

}

}

SeisekiTester.java

class SeisekiTester{

public static void main(String[] args){

Seiseki Tokyo = new Seiseki("オブジェクト指向プログラミング", "専門科目", 2, 5);

Seiseki Metropolitan = new Seiseki("線形代数", "基礎数学科目", 3, 2);

Seiseki University = new Seiseki("実践英語", "教養科目", 4, 7);

Seiseki hun = new Seiseki("実践英語2", "教養科目", 5, 6);

String s = Tokyo.toString();

System.out.println(s);

String l = Metropolitan.toString();

System.out.println(l);

String m = University.toString();

System.out.println(m);

String k = hun.toString();

System.out.println(k);

Tokyo.putTitle();

Metropolitan.putTitle();

University.putTitle();

hun.putTitle();

hun.printTitle();

}

}

実行結果

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科目名:オブジェクト指向プログラミング, 種類:専門科目, 単位:2, 成績:5

科目名:線形代数, 種類:基礎数学科目, 単位:2, 成績:2

科目名:実践英語, 種類:教養科目, 単位:4, 成績:0

科目名:実践英語2, 種類:教養科目, 単位:4, 成績:0

------専門科目-----

オブジェクト指向プログラミング

------基礎数学-----

線形代数

------教養科目-----

実践英語

実践英語2